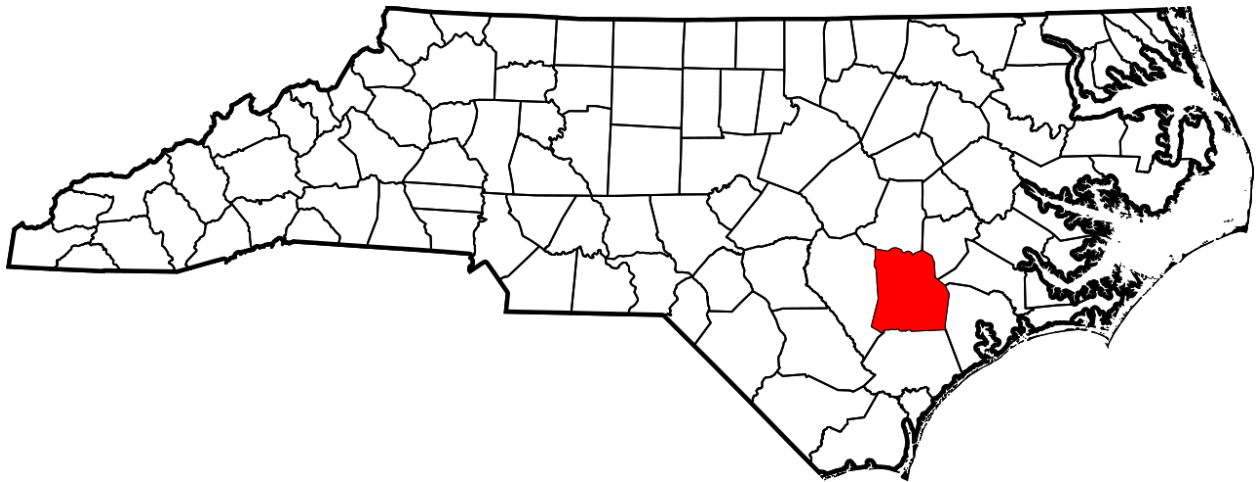


Duplin County North Carolina

Cost of Community Services Study



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Dr. Sandy Maddox and Mr. Edward Olive completed the research for the Duplin County, North Carolina Cost of Community Services (COCS) Study. Dr. Maddox has a doctorate degree in adult education, serves as director of the Lois G. Britt Agribusiness Center at the University of Mount Olive and has worked for over 35 years in agriculture. Mr. Olive serves as Assistant Director of the Lois G. Britt Agribusiness Center at the University of Mount Olive. He received his Bachelor of Science degree in AgriScience Education from the University of Mount Olive and is currently pursuing a Master of Business Administration with a concentration in Marketing from Regent University. An additional contributor for the study was Dr. Kathy Best. Dr. Best is a Certified Public Accountant and Professor of Accounting at the University of Mount Olive. Dr. Best's COCS model was utilized as a template for the creation of this study. Dr. Best is also the author of the Cost of Community Services Studies for Wayne and Craven counties.

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Gary Rose, Duplin County Tax Administrator



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Executive Summary

Review of county government expenditures and revenue collections with respect to land use may be useful as local officials evaluate economic development and county planning opportunities. A Cost of Community Services Study (COCSS) can provide county leaders with a better understanding of the net gain or loss for various land use categories.

The use of Cost of Community Services Studies to give a snapshot of county or municipality revenue-to-expenditure ratio was initiated by the American Farmland Trust (AFT). The AFT realized that land, nationwide, was being converted from agricultural uses to non-farm uses at a rate of 50 acres per hour¹. North Carolina alone lost nearly 9,000 farms and over 1 million acres of agricultural land to other uses over the past 15 years². Duplin County's location in the eastern coastal plain of North Carolina provides the potential to increase land values and competition for land for non-agricultural uses. A Cost of Community Services Study can serve as a valuable tool to plan for growth and to define a balance between open lands and development.

The Duplin County Cost of Community Services Study was conducted using the expenditure and revenue data for each department from the fiscal year 2014-15 Comprehensive Annual Financial Report provided by the Duplin County Manager's Office. To accurately determine expenditure and revenue data, respective department directors or designated representatives were asked to provide a percentage breakdown of fiscal resources devoted to providing necessary community services to three land use groups. The percentage of county revenues derived from each land use was also determined. Land use designations evaluated were 1) residential, 2) commercial/industrial, and 3) agricultural/forestry.³

¹ American Farmland Trust, <https://www.farmland.org/our-work/areas-of-focus/farmland>

² USDA Census of Agriculture, State Data (1997, 2002, 2007, 2012), http://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_1_State_Level/North_Carolina/st37_1_001_001.pdf

³ The land category designations are the following:

This Duplin County COCS study demonstrates the following outcomes for the fiscal year 2014-15:

- ***For each \$1 of county revenue contributed by residential uses, the county spent \$1.14 to provide necessary community services for those residential land owners.***
- ***For each \$1 of county revenue derived from commercial uses, Duplin County spent \$0.30 for county-provided services.***
- ***For each \$1 of income received by Duplin County for agricultural/forestry uses, the county spent \$0.41 to provide required community services.***

Residential land uses created a net loss of \$5,766,099.80 while the other two land use categories generated surpluses of: \$5,565,936.48 from commercial and \$3,749,926.32 from farmland (Table 1).

The ratios generated from expenditure/revenue data for all land uses in Duplin County are similar to other Cost of Community Services Studies in North Carolina and across the country. These ratios show that commercial properties provide the highest net gain with every dollar of revenue only requiring 30 cents in services to commercial properties. Agricultural land follows with 41 cents on the dollar and residential lands are actually a net loss to the county as residential land use requires \$1.14 in services for every dollar of revenue they bring to Duplin County (Appendix Table 4B). The gain realized in commercial and agricultural properties help to cover the residential deficit.

-
- Working and open lands includes farms, forests and open space.
 - Commercial and Industrial are combined and includes firms.
 - Residential development includes all housing, including rentals.

Note also that in the event there was evidence of a migrant agricultural work force, temporary housing for these workers was considered part of agricultural land use. Additionally, the farm business has been separated from the farm residence, with the property value of farm residences assessed in the same manner as any other residences. Therefore farm residences would be included in the residential land use category.

Table 1. Duplin County Cost of Community Services Study Findings

Duplin County	FY 2014-15 Actual	Residential	Commercial	Farmland
Total Revenues	\$55,650,946.00	\$41,523,968.85	\$8,043,552.40	\$6,083,424.74
Total Expenditures	\$52,101,183.00	\$47,171,540.45	\$2,418,351.82	\$2,511,290.73
Net contribution	\$ 3,549,763	(\$5,766,099.80)	\$5,565,936.48	\$3,749,926.32
Land use ratio*– Expenses/Revenue		\$1: \$1.14	\$1: \$0.30	\$1: \$0.41

*The cost of services provided for each \$1 of revenue.

Duplin County has a county population of slightly over 58,500 residents (ranking 64th out of 100 counties in population density). This is recognized as a 19.19% increase in population from the 2000 US Census⁴. Since 2010, population projections exhibit an expectation of a continuing increase with estimates in 2015 of 60,446 and in 2025 of 63,623⁵. Duplin County, along with Hoke and Wilson counties had a tax rate of \$0.73 in 2014. The Duplin County real property tax rate is in the upper 30% of the counties in NC⁶. Additionally, Duplin County invests slightly more in community services to land uses associated with agriculture and forestry (4.82%) than commercial/industrial ventures (4.64%) although the combined total of expenditures for the two land uses still total less than 10% (9.46%) of the county's total expenditures for community services. In summary, Duplin County expends a much lesser amount to provide services to agricultural and commercial land uses as compared with residential. The combined

⁴ U.S. Census Bureau, 2010 Census, North Carolina County Population

⁵ NC Office of Budget and Management https://ncosbm.s3.amazonaws.com/s3fs-public/demog/countytotals_populationoverview.html

⁶ N.C. Department of Revenue, 2012 North Carolina Property Tax Rates

revenue from agricultural and commercial/industrial land uses are important to maintaining the fiscal stability of the county.

Studies have revealed when a rural community with a large base of farm and forestland begins to convert that land into residential development, either as a planned growth strategy or due to market forces and a lack of growth control measures, the local government is virtually guaranteed to head down a path of deteriorating financial stability and increasing local property tax rates⁷. Differential property tax programs are justified as a way to provide an incentive to keep land open and in active agricultural use. Even with the present-use value taxes, agricultural properties contribute a surplus of revenue that contributes to public services for Duplin County residents.⁸

⁷ Dorfman, Jeffrey H. "The Fiscal Impacts of Land Uses on Local Government" Land Use Studies Initiative and Department of Agricultural & Applied Economics The University of Georgia, April 2006

⁸ Present-Use Value, or PUV, is a program established by N.C.G.S. §§ 105—277.2 to .7 and administered by the county tax assessor through which qualifying property can be assessed, for property tax purposes, based on its use as agricultural, horticultural or forest land. The present-use value is the value of the land based solely on its ability to produce income. Qualifying property is assessed at its present-use value rather than its market value. The tax office also maintains a market value for the land. The difference between the market value and the present-use value is maintained in the tax records as deferred taxes. When land becomes disqualified from the program, the deferred taxes for the current and three previous years with interest will usually become payable and due.

Introduction

As was outlined in the *Duplin County Agricultural Protection Plan* completed in 2010, there exists a great potential for Duplin County to continue to grow its economic impact through agriculture and agribusiness. As noted in the plan, Duplin County agriculture is the economic engine for the county for a variety of reasons. Numerous strengths exist within the county to support agriculture and agribusiness including prime soil and water resources; diversity of the agriculture industry both crops and livestock; public sector support for agriculture; access to major transportation corridors; low development pressure; and market accessibility for agricultural products⁹. By preserving farmland and other open spaces in Duplin County, not only is agricultural production protected, but the economic viability of rural communities within the county is ensured.

The military presence in eastern North Carolina is in part due to agricultural and open lands that exist and are compatible with the training needs of numerous military installations. Privately-owned agricultural, forest, and open-space lands are essential to the military mission. As noted by county officials, the County's geographic proximity to the military installations of Marine Corps Base Camp Lejeune (45 miles), Marine Corps Air Station New River (40 miles), Fort Bragg U.S. Army Base (65 miles), Marine Corps Air Station Cherry Point (85 miles) and Seymour Johnson Air Force Base (40 miles), the County is strategically positioned to support projected military growth in the area¹⁰.

On July 12, 2016 the North Carolina Department of Agriculture and Consumer Services announced the delineation of a 33-county region as the Eastern North Carolina Sentinel Landscape (Figure 1). The goal of this federal-state-local, public-private partnership is to create incentives which assist qualifying private landowners and communities to preserve specific military mission-critical areas and take action to help sustain military

⁹ Agricultural and Community Development Services, Inc., Duplin County Agricultural Protection Plan (2010)

¹⁰ Lanier Teresa, Introductory Section, Duplin County Comprehensive Annual Financial Report For the Year Ended June 30, 2015

readiness, through the protection and preservation of working lands, and natural resources¹¹.



Figure 1. Eastern North Carolina Sentinel Landscape and Military Mission Footprint

When agricultural or other open lands are converted to development or sites for cell towers, or high-intensity lighting, military training opportunities are put in jeopardy. The Eastern North Carolina Sentinel Landscape has recognized Duplin County as an essential asset to military training in eastern North Carolina. Through voluntary programs and incentives, eligible landowners and communities in Duplin County that wish to conserve and protect their working lands may, in the future, receive financial assistance to protect working lands and forests while also protecting the military mission

¹¹ USDA, US Dept. of Interior, US Dept. of Defense, Sentinel Landscapes (2016) <http://sentinellandscapes.org/>

of key installations. This delineation of Duplin County and surrounding counties will help to strengthen the economies of farms and forests in the region.

This protection and assistance is important to agricultural operations in Duplin County on many different levels. The Duplin County Cost of Community Services Study demonstrates that the provision of community services for agriculture and forestry results in a net gain to the county with regard to the reported tax base. Data indicates that of the three land uses investigated, agricultural/forestry provides the second highest rate of return, falling just behind commercial/industrial. As economic development is pursued, agricultural lands and uses should be supported and encouraged as much as commercial and industrial uses are commonly pursued and encouraged.

Most communities fail to realize that saving land saves money. While residents demand expensive public services and infrastructure, privately-owned working lands enhance community character and quality of life without requiring significant public expenditures. Their fiscal contributions typically are overlooked, but like other commercial and industrial land uses, agricultural (farm, ranch and forest) lands generate surplus revenues that play an essential role in balancing community budgets. This, perhaps, is the most important lesson learned from Cost of Community Services (COCS) studies.¹²

Numerous COCS studies have been completed by a variety of researchers around the country for cities and rural communities. The maximum, median, and minimum ratios of local government revenues-to-expenditures collected from these studies are shown in Table 4A of the Appendix. The median ratio states that for every dollar the county generates from the residential category, it spends \$1.16 in services. The commercial/industrial and farm/forestland categories show that, on average, the government receives more than it spends and therefore, these land uses create a surplus. These numbers show the fallacy of depending on residential development as the road to a sound growth policy. Residential development to date has generated sufficient revenue to cover its associated expenditures in only one instance in various

¹² Best, Wayne County Cost of Community Services Study (2011)

NC county studies or other county studies across the nation. The minimum reported ratio for national studies conducted and reported by the American Farmland Trust was 1:\$1.01. The COCS study completed in 2015 for Pamlico County located in the coastal region of NC and with a population of 13,000 persons reported a ratio of 1:\$0.99 indicating that residential properties were at the breakeven point and was below the last reported minimum. The rural nature of the county, the lack of development pressure and minimal investments in community services by the county was ascertained to be the reason for this balance in revenue and expenditures for residential properties.

American Farmland Trust developed this low-cost fiscal analysis to contribute local knowledge to decisions about land use. The purpose of this research is not to suggest any prescriptive course of action. By using statistics and financial land use and economic data specific to Duplin County, this COCS study can help move public dialogue from emotion to analysis and from speculation to projection. It provides reliable financial data, allowing officials to make informed planning decisions and evaluate strategies that will maintain a balance in the distribution of future land uses¹³.

¹³ Best, Wayne County Cost of Community Services Study (2011)

Cost of Community Services Studies¹⁴

A Cost of Community Services (COCS) study is a case study approach used to determine an individual community's public service costs versus revenues based on current land use, specifically residential, commercial/industrial, and farm/forest. Publicly available financial reports (Audited Financial Statements or the Comprehensive Annual Financial Report (CAFR)), departmental records and budgets, and assessor's data are used to allocate revenues and expenditures to determine the financial effects of the various land uses. COCS studies are based on real numbers, making them different from traditional fiscal impact analysis, which is predictive and speculative. They show what services taxpayers receive from their local government and how local government revenues and expenditures relate to land use.

American Farmland Trust (AFT) first became interested in COCS studies and growth-related issues in the 1980s because agricultural lands were converted *more commonly* to development than any other type of land. Farmland is desirable for building because it tends to be flat, well drained and has few physical limitations for development. It is also more affordable to developers than to farmers and ranchers. COCS studies were originally used to investigate three commonly held claims:

1. Open lands—including working agricultural and forest lands—are an interim land use that should be developed to their “highest and best use”;
2. Agricultural land gets an “unfair” tax break when it is assessed at its actual use value for farming or ranching instead of at its potential use value for development;
3. Residential development will lower property taxes by increasing the tax base.

¹⁴ Freedgood, Cost of Community Services Studies: Making the Case for Conservation, American Farmland Trust, 2002.

In response to these claims, it is of particular relevance to consider the fiscal contributions of privately-owned natural resource lands in areas, such as Duplin County, where farming and forestry are important industries. Both commercial and agricultural lands generate less revenue than residential properties in Duplin County contributing 14.45% and 10.93% respectively. While governmental expenditures for services are slightly higher for agricultural land uses (4.82%) than commercial land uses (4.64%), working lands still require little public expenditure in comparison due to their modest demands for infrastructure and public services. While it is true that an acre of land with a new house generates more total revenue than an acre of farmland, this information provides little insight into a community's fiscal balance. As a result, COCS studies are used to determine the *net* fiscal impact of land uses in the present by comparing total revenues to total expenditures to ascertain the overall contribution of different land uses.

COCS studies are conducted for a variety of other reasons, such as supporting existing land protection programs or developing new ones. Some communities are interested in raising awareness about the benefits of protecting natural resources, while others may have broader planning goals. Other primary reasons for COCS studies are: to compare the impacts of different land uses, to direct new development toward existing infrastructure, or to supplement a comprehensive planning process. *Above all, COCS studies are most valuable to communities that are concerned about farm and other open lands.*

COCS studies are best used in communities similar to Duplin County that rely heavily on property taxes to generate revenues. It is important to recognize that COCS studies are fiscal, not economic analyses and therefore do not examine direct economic benefits or secondary impacts of a given land use to the local or regional economy. COCS studies are not intended to judge the value of one land use over another or compare one type of new development to another. *The particular niche of a COCS study is to identify existing land use relationships and evaluate the contribution of agricultural and other open lands on equal ground with developed land uses.* Note, the

data provided in COCS studies are “snapshots in time,” and as such are neither predictive nor speculative.

Table 2 classifies categories of information that a Cost of Community Services Study can provide and what their ultimate utility can illustrate to local governmental officials.

Table 2. Uses of Cost of Community Services Studies	
COCS Studies Do:	COCS Studies Do Not:
<ul style="list-style-type: none"> ○ Provide a baseline of information to help local officials and citizens make informed land use decisions. ○ Offer the benefit of hindsight to see the effect of development patterns to date. ○ Demonstrate the relative fiscal importance of privately owned land in agricultural, forest or other open space uses. ○ Make similar assumptions about apportioning costs to agricultural land as to commercial/industrial land. ○ Have a straightforward methodology and easy-to-understand findings. 	<ul style="list-style-type: none"> ○ Project future costs of services incurred by new development. ○ Determine the direct or indirect value of a particular land use to the local or regional economy. ○ Quantify the non-market costs and benefits that occur when agricultural land is converted to urban uses. ○ Judge the intrinsic value of any particular land use. ○ Compare the costs of different types of residential development. ○ Treat agricultural and other working lands as residential development.

Source: Freedgood, Julia. Cost of Community Services Studies: Making the Case for Conservation. American Farmland Trust. 2002.

Methodology

The following standard land use definitions are adapted to individual COCS studies.

- **Agricultural development** (Farm, Forest and Open Land) – All privately-owned land and buildings associated with agricultural and forestry industries, including temporary housing for seasonal workers who are not permanent residents.
- **Residential development** – All single-and multi-family residences and apartment buildings, including farmhouses, residences attached to other kinds of businesses and rental units; all town-owned property used for active recreation or social functions for local residents.
- **Commercial and Industrial Development** ¹⁵– All privately-owned buildings and land associated with business purposes, the manufacturing of goods or the provision of services, excluding agricultural and forestry industries, and utilities.

There are three basic steps in the process of conducting a COCS study:

1. Collect data: Obtain relevant reports and other financial records, interview officials, boards and departments.
2. Allocate revenues and expenditures by land use.
3. Analyze data and calculate revenue-to-expenditure ratios for each land use category.

The COCS revenue-to-expenditure ratio compares how many dollars' worth of local government services are demanded for each dollar collected. A ratio greater than 1.00 suggests that for every dollar of revenue collected from a given category of land, more than one dollar is spent. Conversely, an expenditure ratio less than 1.00 indicates that

¹⁵ For simplicity, the term "commercial" will denote both industrial and commercial land uses for the remainder of this study. Likewise, "agricultural" will refer to farm and forest land uses.

for a given category of land, demand for publicly-financed services is less than that sector's contribution to the local budget.

Most studies show that the COCS ratio is substantially above 1 for residential land while ratios for the other two land use categories are usually substantially below 1. Duplin County financial records revealed that the COCS ratio for all land uses followed this trend with residential land uses above 1 and agricultural and commercial/industrial below 1.

COCS Method for Duplin County

The Duplin County Cost of Community Services study is based on fiscal data from the 2014-2015 budget year. The reported actual expenditures for the County of Duplin for the fiscal year that ended on June 30, 2015 was \$52,101,183 for the seven departmental categories and the non-departmental classification. A breakdown of the expenditures revealed that 90.54 percent of expenditures were to provide services to residential land uses, 4.64 percent were to provide services to commercial/industrial land uses and 4.82 percent were attributed to agricultural and forestry land uses.

Actual county revenues received from taxes, licenses, and other fees, services, and investments, during this same fiscal period were reported as \$55,650,946. Of this total, 74.62 percent was generated from residential property taxes and additional fees, 14.45 percent was generated by commercial/industrial land use, and 10.93 percent resulted from agricultural and forestry use. The county tax office and county manager's office provided data specific to county revenues and expenditures for each county department and the distribution of funds and services that were devoted to each land use: 1) Residential, 2) Commercial/Industrial, and 3) Agricultural/Forestland.

The Comprehensive Annual Financial Report for Duplin County compiled by Carr, Riggs & Ingram, LLC was used to derive the actual revenues and expenditures for the fiscal year ending June 30, 2015. Revenues and expenditures were allocated among the three defined land uses based on data provided by the county manager's office. Data obtained was entered into a spreadsheet to derive the total amount of funds allocated by each department to each land use.

Categories included in Duplin County's revenues were:

- Property Taxes
- Sales Taxes
- License Fees and Other Taxes
- Unrestricted Intergovernmental
- Restricted Intergovernmental

- Restricted Grants
- Permits and Fees
- Restricted Revenue
- Sales and Services
- Investment Earnings
- Miscellaneous

Real property taxes were collected for the general fund at a rate of \$0.7300 (73.0 cents) per \$100 of property value in 2014-2015.

Expenditures for the County came from the eight fund services: general government, public safety, economic and physical development, human services, cultural and recreational, environmental protection, education, and non-departmental. The largest county fund was public safety with expenditures of \$16.15 million.

Expenditures were allocated in one of two ways. For services that exclusively benefited households (as opposed to commercial establishments)—for example, public schools—100% of expenditures were allocated to the residential sector. For departments whose activities benefited both businesses (including agricultural businesses) and residences, expenditures were allocated based on the proportion of total value accounted for by each land use category.

If it was difficult to derive a direct percentage or distribution of the services devoted to a particular land use, a default percentage was determined based on the assessed property valuations for 2014-15 fiscal year for each land use. The information collected from the Duplin County Tax Office is shown below. This default breakdown is as follows:

- 55.4% Residential (including Historic Property)
- 25.2% Commercial/Industrial
- 19.4% Agricultural (PUV)

Findings

Supporting information for the findings expressed in this section can be found in the Appendix.

Appendix Table 1 shows the distribution of revenues for Duplin County in the 2014-15 fiscal year. The actual county fund revenues for 2014-2015 were \$55,650,946.00. Ad valorem property taxes, which are taxes based on the assessed value of real estate or personal property, generated the most revenue with \$30,069,681.00, or just over 54% of the county's total revenue. Revenue from sales and services made up nearly 13% of county government income at \$7,124,707.00. Local option sales tax at \$6.6 million accounted for almost 12 percent of revenue collected. Restricted and unrestricted intergovernmental revenues totaled approximately 20 percent of the county's total revenue for 2014-15 contributing \$4,734,400 (8.51%) and \$6,237,452 (11.21%) respectively. The remaining 1.55 percent of revenue was distributed between permits and fees (0.87%), miscellaneous revenues (0.20%), other taxes and licenses (0.17%), restricted revenue (0.12%), investment earnings (0.10%), and restricted grants (0.09%). Additional detail of revenues collected is found in Appendix Table 6.

Appendix Table 2 shows the distribution of actual expenditures for the fiscal year 2014-2015 for the County of Duplin (additional detail may be found in Appendix Table 7). Duplin County actual expenditures for fiscal year 2014-2015 for the 7 county departments and inclusive of non-departmental expenditures were \$52,101,183. Public safety represented the largest expenditure amount at more than \$16 million, or 31 percent of the total county government expenditures. Human Services follows closely with just over 30.5% of the total expenditures posting slightly less than \$16 million. To provide educational services to county residents, \$11,522,774 or nearly 22.12 percent of county expenditures were required. General government spent almost \$6 million, or 10.93 percent of the county departmental expenditures. The other 5.41% of Duplin County expenditures are divided among cultural and recreation (2.01%), environmental

protection with (1.49%), economic and physical development with (1.41%), and non-departmental (0.5%) with a combined total expenditure of \$2,820,648.

Appendix Table 3 provides the revenue-to-expenditure ratios that were developed through the Duplin County Cost of Community Services Studies. In summary, this COCS study found that in Duplin County, 90.54 percent of county expenditures were used to provide services for residential land use compared with 4.64 percent for commercial and 4.82 percent for farm and forest land. ***In Duplin County for each dollar of residential revenue earned, the county spent approximately \$1.14 to provide services to those residents during 2014-15.*** This ratio is slightly less than the median noted by the American Farmland Trust, which is \$1:\$1.16, for all studies and is similar to several studies in North Carolina including Chatham County (\$1.15), Henderson County (\$1.16), Franklin County (\$1.12), Yadkin County (\$1.18), and Davie County (\$1.14). This revenue-to-expenditure ratio represents a net loss to the county as a result of the provision of community services to the residential property owners of Duplin County. A net loss is commonly found in COCS studies with regard to residential land use as the majority of expenditures are used to benefit and serve residents of the county. The largest departmental expenditures in Duplin County provided to residential property owners were attributed to Public Safety and Human Services equaling a combined total of 60 percent of the county's expenditures.

Revenue income for both commercial/industrial and agricultural/forestry resulted in a net gain to the county when evaluating the revenue-to-expenditure ratios. These land use revenues offset the net loss realized from residential land uses. Most COCS studies are conducted in counties which are experiencing a loss of open land as a result of an increase in residential development or are anticipating this to occur due to developmental pressures related to population growth. Duplin County's population experienced an increase of 10,000 residents from 2000 to 2010 according to the county's website. This population increase and anticipated continued growth in Duplin County is important for county leaders to recognize. The residential revenue-to-expenditure ratio provided in the COCS provides county leaders the ability to

understand the importance of maintaining a balance in land uses as they relate to the county's fiscal stability. As residential development continues to evolve in Duplin County, it is expected that this ratio will increase as the volume of services and the associated costs to provide these services to residents increase. By maintaining and supporting agricultural and commercial land uses in Duplin County, county leaders can ensure a sustainable and fiscally responsible balance between these three important land use categories.

As noted, both commercial/industrial and agricultural/forestry land uses demonstrated a net gain to the county when the revenue-to-expenditure ratio was evaluated. ***For each \$1 of revenue generated from commercial/industrial land uses, Duplin County spent an estimated \$0.30 to provide services to those commercial entities.*** Agricultural lands also represented a positive ratio of return for the county's investment in agricultural and forestry related expenditures. ***For each dollar of revenue derived from agricultural and forested land, Duplin County spends \$0.41 to provide necessary services for those land uses.*** These ratios are comparable with other county studies both in NC and nationwide. The lower revenue-to-expenditure ratio noted for commercial/industrial land use exemplifies the interest of county leaders and economic developers in counties across the state and nation to encourage and provide incentives for this type of land use. The net gain associated with agricultural lands, while often over looked, serves as an important component of the necessary balance essential to the economic stability of county governments.

As noted, Appendix Tables 4A and 4B provide ratio comparisons with national cost of community services studies and NC studies. As mentioned in the Table 3 synopsis, the residential ratio calculated in the Duplin County Cost of Community Services study was very similar to the median from national studies and residential ratios in NC studies. Most studies show that the COCS ratio is substantially above 1 for residential land use while ratios for the other two land use categories are usually substantially below 1. In the Appendix Tables 4A&B the median "national" residential revenue-to-expenditure ratio is 1:1.16, while the median commercial and agricultural are 1:0.29 and 1:0.35,

respectively. In North Carolina, over fourteen counties have had Cost of Community Services studies conducted. The median residential revenue-to-expenditure ratio for these NC studies was 1:1.23, while the median commercial and agricultural are 1:0.37 and 1:0.60, respectively. Duplin County's ratios for residential is lower (at 1:1.14) than the national and state median ratio. The agricultural land use ratio of revenue-to-expenditures in Duplin County (1:1.41) when compared to the median ratio nationwide is higher and lower when compared to the median ratio for North Carolina studies.

The commercial ratio of 1:0.30 in Duplin County is slightly higher than the national median and lower than the median of the other North Carolina studies. Multiple county departments posted expenditures for the provision of services to commercial and industrial land uses. However, fewer departments posted revenues contributing to the county revenue stream for this land use category.

The break-even home value for Duplin County is provided in Appendix Table 5. The revenue and cost of service numbers that lie behind the ratios reported in this study can also be used to calculate the home value necessary for a county to break-even. If one assumes that service cost is fairly constant across houses relative to the home value, such computations are straightforward. Further, this is not an unreasonable assumption as local government service costs will vary with house location, lot size, and with number of children, but are not particularly correlated with home value. Given this assumption, Appendix Table 5 presents an analysis which computes the residential property value needed to generate an exact balance between average revenues contributed by current housing units and the average value of public services consumed by households.

The "breakeven" house price was computed assuming that any new household would consume the average amount of services reflected in the 2014-2015 budget – i.e., that they would possess the average number of school children, consume an average amount of public health and social services, etc. The computation further assumes that any new household would contributed the average amount of non-property tax revenues

generated by existing residential properties, and takes as a benchmark the current property tax rate of 73.0¢ per \$100. Based on these assumptions, the breakeven property value was computed as \$120,543.

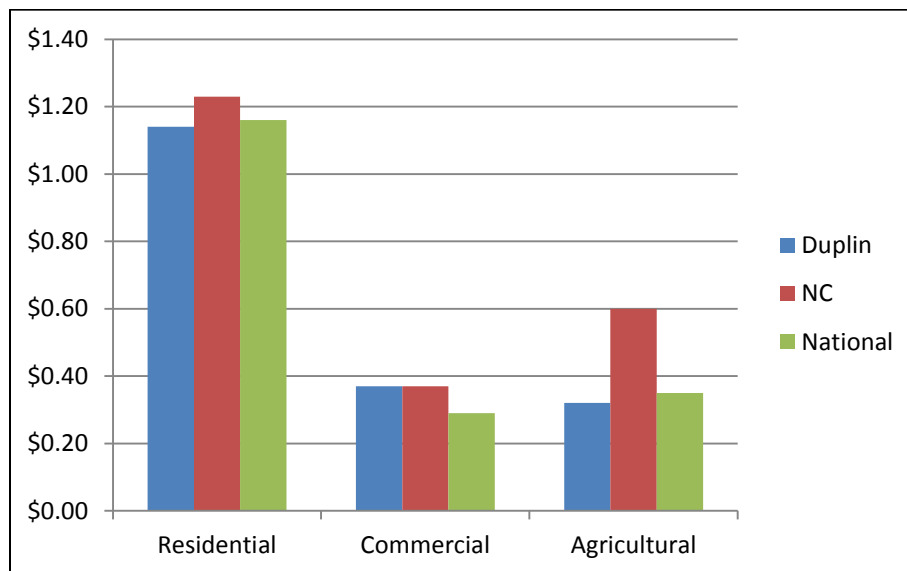
Table 6 of the Appendix provides a listing of the actual revenues broken down by the land uses evaluated in the study. For fiscal year 2014-15, the County of Duplin revenues totaled \$55,650,946. The breakdown percentages were provided by the county tax office and county manager's office after evaluation of departmental revenues. Table 6 accurately represents the distribution of each revenue line item and provides the percentage that is attributed to each land use. This information was compared with the expenditure information to calculate the ratio of Duplin County's revenues-to-expenditures. The default breakdown percentage for both revenues and expenditures is: Residential (including historic) 55.4%; Commercial/Industrial 25.2%; Agriculture/Forestry 19.4%.

Appendix Table 7 details the expenditures, totaling \$52,101,183, for the county in fiscal year 2014-2015. These expenditures are again distributed by land use with the percentages provided by county administrators. This information was used with the revenue data to calculate the ratio of county revenues-to-expenditures.

Discussion

COCS studies provide a baseline of information to help local officials and citizens make informed land use decisions. They offer the benefit of hindsight to see the effect of development patterns to date. They also demonstrate the fiscal importance of privately owned land in farm and forest uses.

The ratios found in Duplin County are comparable to national median value for the residential sector. The residential ratio of \$1 of revenue to \$1.14 expenditure is within two cents of the national median of \$1.16 and seven cents of the median for NC studies, \$1.23. The commercial ratio of \$1 of revenue to \$0.30 is only one cent higher than the national median of 29 cents and seven cents less than the NC median of 37 cents. Finally, the farmland ratio of \$1 to \$0.41 is 6 cents higher than the national median of \$1 to \$0.35 but is significantly less than the NC median of 60 cents (See Figure 2.).



**Figure 2: Duplin Cost of Community Services Study Ratios
Comparted to NC and National Studies (American Farmland Trust)**

The purpose of a COCS study is to determine the net fiscal contribution of farm properties so these lands may be duly considered in the planning process, not to recommend one type of land use over another. Because the studies are descriptive, they should not be used to predict the impact of a single development or to project future costs of services created by new development.

The results of this study, however, provide reliable financial information that demonstrates the importance of agricultural and forest lands to the fiscal stability of Duplin County.

- In Duplin County residential development contributes the largest amount of revenue, over \$41.5 million, however its net fiscal impact was negative as reflected in the 2014-2015 fiscal year data. Residential land uses created a deficit of \$5,647,571.60, while the other two land use categories generated substantial surpluses: \$5,625,200.58 from commercial and \$3,572,134.01 from agricultural.
- During the 2014-2015 fiscal year, Duplin County reported a budget surplus. This surplus was a result of the revenue generated by both commercial/industrial and agricultural/forestry land uses. Commercial land use revenues alone would not have offset the net loss required to provide services to residents of Duplin County.
- Residential, commercial and agricultural lands generated revenue from property and sales taxes and other fees with the largest surplus coming from commercial land uses. Duplin County retains more county funds from commercial land uses than any other.
- Both commercial and agricultural lands pay more in local tax and other revenues than they receive in services, even with a reduced assessed value for agricultural lands.

As American Farmland Trust has emphasized previously, this research also suggests that development of strategies to retain this land base for future agriculture would be a good long-term investment.

- Differential property tax programs, such as present-use value, are justified as a way to provide an incentive to keep land open and in active agricultural use.
- A balance of land uses, including agricultural lands, is needed to provide adequate revenue to pay for county services.

The findings of this study show the fiscal benefits that result from agricultural lands and factual information to help residents understand the delicate fiscal balance between taxes, other community revenues and the cost of public services. In addition, this information should be useful for county leaders and residents when faced with land use decisions now and in the future.

Agriculture within Duplin County is a significant contributor to the economy. Over 230,925 acres of farmland generate \$125 million in total cash receipts from the sale of agricultural products. This study makes a significant statement: It is financially wise to keep land in agriculture. In addition to helping maintain fiscal balance, farmlands help sustain Duplin County's economy, contribute to economic diversity and rural character, and help shape the overall quality of life in the region.

Duplin County's desire to engage in a Cost of Community Services Study exemplifies the interest of local leaders in the future and health of the county and provides a unique opportunity for these and future leaders. The fact that Duplin County data exhibits a net gain for both commercial/industrial and agricultural/forestry land uses is similar to other studies, but does present an opportunity for planning for the future of agriculture and anticipated residential and commercial development in the future. Study after study indicates as residential development has occurred and subsequent services are provided that residential development becomes an increased net loss to the local government with regard to revenue/expenditure evaluations. These same studies indicate that the net gain represented by commercial and agricultural uses in all cases is enough to offset the net loss of residential development thereby fortifying the need to have a balanced land use plan. Most local leaders plan for multiple community needs

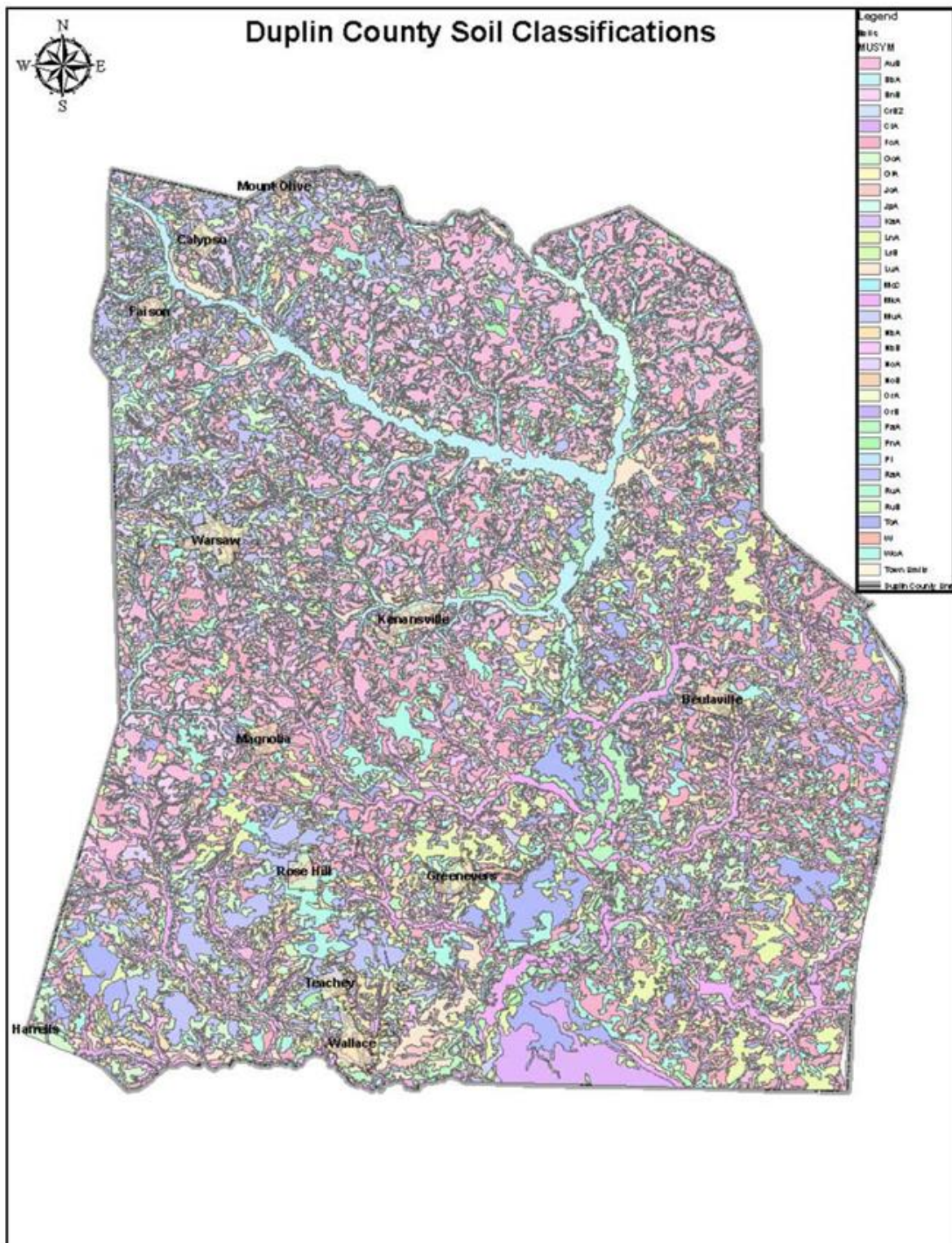
including: transportation, housing, economic development and environmental protection. Data, however, exhibits most people want farms in their futures, but very few communities plan for farmers or farmland. Duplin County is in a position as it moves forward to develop strategies to continue to protect farmland and promote smart growth and in so doing ensuring the fiscal strength and stability of the county.

Profile of Duplin County

Duplin County is located in the coastal plain region of southeastern North Carolina. The county is comprised of 816 square miles of land mass and 5.5 square miles of water and is the 9th largest county in the state. The county is bordered by 6 counties: Wayne to the north, Lenoir to the northeast; Jones to the east; Onslow to the southeast; Pender to the south and Sampson to the west. Duplin County's county seat is Kenansville and there are 10 rural communities that are located within the county. Census data from 2010 denotes 86% of the population is denoted as rural.

Duplin County possesses a key asset with its location in the coastal plain - prime agricultural soils (Figure 3). The most productive agricultural soils account for more than 105,000 acres of the County's land mass. These soil types while critical to agricultural production are also attractive for development with characteristics of being well drained and no to low slopes.

The 2012 US Census of Agriculture reported that Duplin County is comprised of a total of 521,886 acres of which 230,925 acres or 44% is reported to be farmland. In addition the total number of farms equaled 940 with the average farm size reported as 246 acres. In 2012, NC Extension Forestry reported 271,004 acres in the county were forested acres with 259,777 or 96% reported as privately owned. Farm and forested acres represent a significant land use in Duplin County, 96% of the total land area is engaged in working lands or open space.



Duplin County is located in the heart of the agriculture industry of North Carolina. Sampson, Duplin and Wayne Counties were reported in 2014 by the NC Department of Agriculture and Consumer Services Agricultural Statistics Division to be the 1st, 2nd, and 4th ranked counties in the state in total farm cash receipts received respectively. Duplin County was reported to be the number one county in farm cash receipts received from livestock with total receipts reported as \$1,080,162,000. Duplin County also ranked eighth in total cash receipts from crops with total receipts reported as \$125,052,000 for a total of cash receipts received including government payments of \$1,218,850,000.

Farming and forestry are each important aspects of the economic and cultural health of the county. To provide an overview of previous work leading to the Cost of Community Services Study for Duplin County, the executive summary from the *Duplin County Agricultural Protection Plan* completed in 2010 is cited below to provide information on what led to the interest in completing the Duplin County Cost of Community Services study.

The intent of the Duplin County Agricultural Advisory Board in developing this Agricultural Protection Plan was to create a living document to be used by both the agricultural industry and local government to implement economic development programming, improve public policy, and create a generally supportive environment for agriculture in Duplin County.

The Duplin Agricultural Protection Plan has two purposes: 1) to analyze and understand the foundations of the agricultural economy in Duplin County ("the County"); and 2) to create a forward looking plan that not only addresses a suite of issues facing farmers and citizens in the County today, but also sets the stage for agricultural growth.

The final recommendations encourage long-term policy formation in support of agriculture. In order to get there, a specific short-term framework and transition plan will help guide local programs on agricultural economic development and land use initiatives. The result of the process is a series of seventeen recommendations for action relative to agricultural business and land use conditions.

This study adopts a broad definition of agriculture to include all aspects of the cultivation and production of plant material and animal products, as well as the

marketing, processing, and distribution of these products, and other secondary on-farm activities (e.g., agricultural tourism, forestry, and aquaculture).

Agricultural Protection Vision

To enhance the economic viability of Duplin County's working lands in a manner consistent with community character, the County's development needs, and industry growth requirements.

Additionally, the Duplin County Agricultural Protection Plan addresses specifically the need for education and information related to land use in the county. Within the Executive Summary of this plan these concerns are addressed:

One of the main issues facing the County and local farmers in dealing with Duplin's future development is that current trends represent a low level redistribution of housing throughout the County rather than growth oriented development. Instead, Duplin is faced with a slow growth phenomenon that is driven by modest but consistent growth across the County. One of the key drivers of this growth is the United States' military as retirees settle in rural Duplin and active duty military and contractors come to the area.

This condition has created wide spread road front development with little infill capacity to create density in growth nodes. This development pattern causes traffic problems due to the number of egress/ingress points, chokes road shoulders with mailbox placement, and creates a climate of potential conflict between agricultural and residential uses. The pattern and scale of development make it difficult for land owners to plan cluster developments and the market, which focuses on affordable housing, encourages developers to take the lowest engineering cost development approach.

The creation of the Duplin County Cost of Community Services Study will assist local government officials, economic developers and development entities to better understand the role that working lands and open lands play to ensure the fiscal responsibility of the county and to ensure that the primary economic engine of the county, agriculture and agribusiness is supported and protected.

EDUCATION

Duplin County provides a quality public education to over 8,000 students at 15 public schools across the county annually. The county's educational system has been innovative in offering public school students the opportunity to attend Duplin Early College High School, a partnership between the Duplin County School System and James Sprunt Community College which provides students the opportunity to receive college credit while completing high school. Post-secondary institutions of education, James Sprunt Community College and the University of Mount Olive offer students the opportunity to pursue both 2 and 4 year degree programs preparing graduates for diverse career opportunities.

The NC Department of Commerce reported in July 2016 the educational level of adults 25 years of age and up in Table 3.

Table 3. Education Level of Duplin County Residents and Students¹⁶

2014-15 Kindergarten-12th Enrollment		9,703	
2015 Average SAT score (2400 scale)		1,302	
2015 Percent of Graduates taking SAT		42.4%	
2013-14 Higher Education Completions		399	
2013-14 Higher Education Total Enrollment		1,806	
2014 Est Education Attainment - At Least High School Graduate		28,121	71.4%*
2014 Est Education Attainment - At Least Bachelor's Degree		4,106	10.4%*

* Percentage is of Duplin County Residents 25 years of age and older

ECONOMY

Duplin County is located within the I-40 corridor and within an hour of other major interstate highways. The county is also within reach of the deep water

¹⁶ Source: NC Department of Commerce, ACCESSNC, Duplin Co July 2016.
<http://accessnc.nccommerce.com/DemoGraphicsReports/pdfs/countyProfile/NC/37061.pdf>

ports of Wilmington and Morehead City. The county airport and the CSX railroad system that transverses the county add accessibility to the county also.

The county is home to a diverse business community with companies engaged in food processing, logistics and distribution, alternative energy and defense. Table 4 provides 2013 data on the top 25 largest manufacturers in the county. The influence on the economy from agriculture and agribusiness is evident from this listing.

Table 4. 2015 Duplin County Top 25 Largest Manufacturers¹⁷

Rank	Year	Period	Company Name	Industry	Employment Range
1	2015	02	Butterball LLC	Manufacturing	1000+
2	2015	02	Smithfield Foods Inc.	Manufacturing	1000+
3	2015	02	House Of Raeford Inc.	Manufacturing	1000+
4	2015	02	Duplin County Schools	Education & Health Services	1000+
5	2015	02	Murphy Family Ventures LLC	Natural Resources & Mining	500-999
6	2015	02	Guilford Mills Inc.	Manufacturing	500-999
7	2015	02	County Of Duplin	Public Administration	500-999
8	2015	02	Bay Valley Foods LLC	Manufacturing	250-499
9	2015	02	Vidant Medical Center	Education & Health Services	250-499
10	2015	02	Burch Equipment, LLC	Natural Resources & Mining	250-499
11	2015	02	Johnson Breeders Inc.	Natural Resources & Mining	100-249
12	2015	02	Southern Produce Distributors Inc.	Natural Resources & Mining	100-249
13	2015	02	Wal-Mart Associates Inc.	Trade, Transportation, & Utilities	100-249
14	2015	02	James Sprunt Technical College	Education & Health Services	100-249
15	2015	02	Precision Hydraulic Cylinders Inc.	Manufacturing	100-249
16	2015	02	Cottle Farms Inc.	Natural Resources & Mining	100-249
17	2015	02	National Spinning Co Inc.	Manufacturing	100-249
18	2015	02	Valley Protein Inc.	Manufacturing	100-249
19	2015	02	Bojangles Famous Chicken & Biscuits	Leisure & Hospitality	100-249
20	2015	02	The Pork Company (A Corp)	Manufacturing	100-249
21	2015	02	Qsi	Professional & Business Services	100-249
22	2015	02	Goshen Medical Center	Education & Health Services	100-249
23	2015	02	Cottle Strawberry Nursery	Natural Resources & Mining	100-249
24	2015	02	Chase Packing LLC	Natural Resources & Mining	100-249
25	2015	02	McDonald's Restaurants Of NC Inc.	Leisure & Hospitality	100-249

¹⁷ Source: NC Commerce, Labor and Economic Analysis Division, Top 25 Employers by NC County
Notes: County is determined by the address provided by the business

The NC Department of Commerce reported in May 2015 labor force numbers of 27,183 with 2015 employment figures to be 25,725 with those unemployed at 1,458 for an unemployment rate of 5.4%. Additional information related to employment/unemployment is noted in Table 5. This unemployment rate is in keeping with surrounding counties with Jones at 4.9%, Sampson 5.2%, Pender 5.3%, and Onslow and Wayne at 5.5%.

Table 5. Duplin County Employment by Wages and Industry¹⁸

Employment / Wages by Industry	2015 Annual Employment	2015Q4 Avg Weekly	2015 Avg Weekly
Total All Industries	20,109	\$664	\$617
Total Government	3,292	\$770	\$734
Total Private Industry	16,818	\$642	\$595
Agriculture Forestry Fishing & Hunting	2,620	\$585	\$566
Mining	0	\$0	\$0
Utilities	28	\$1,194	\$1,250
Construction	565	\$690	\$642
Manufacturing	6,070	\$682	\$630
Wholesale Trade	498	\$865	\$794
Retail Trade	1,704	\$454	\$416
Transportation and Warehousing	249	\$923	\$859
Information	42	\$1,259	\$1,269
Finance and Insurance	220	\$867	\$700
Real Estate and Rental and Leasing	65	\$411	\$412
Professional and Technical Services	0	.	.
Mgt of Companies, Enterprises	0	.	.
Administrative and Waste Services	535	\$527	\$487
Educational Services	12	\$247	\$270
Health Care and Social Assistance	1,296	\$543	\$532
Arts, Entertainment and Recreation	24	\$336	\$298
Accommodation and Food Services	1,194	\$250	\$237
Other Services Ex. Public Admin	251	\$608	\$552
Public Administration	1,082	\$737	\$722
Unclassified	0	\$0	\$0

¹⁸ Source: NC Department of Commerce, ACCESSNC, Duplin Co July 2016.
<http://accessnc.nccommerce.com/DemoGraphicsReports/pdfs/countyProfile/NC/37061.pdf>

POPULATION

The median age of the overall population in Duplin County in 2014 was reported as 38.4 years of age. Over 27% of residents were reported to be 19 years of age or younger; 38% were reported between the ages of 20 and 49; and 35% were reported to be 50 years of age or older. While the median age in Duplin County for the general population is 38.4 years of age the average age of a farmer reported in the 2012 Census of Agriculture was much older at 56.5 years of age. It is expected that this might have dropped a little over the last two year period, but not significantly indicating that the farming sector is owned by an older demographic. This is another reason to consider ways to best protect the agricultural industry in the county. Farm transition and estate planning efforts have been undertaken in the county through agencies such as Cooperative Extension and the University of Mount Olive. These cooperative efforts along with the COCS study and forest management efforts are all concerted ways to educate to ensure that all Duplin County residents understand the importance of agricultural land use to the economic viability of the county.

The aforementioned Sentinel Landscapes Project which encompasses Duplin and 32 other counties in eastern NC will be an excellent opportunity for these partnering agencies to work together to not only address the recommendations contained in the Duplin County Agricultural Development Plan, but to develop strategies and land use plans as a result of the data within the Duplin County Cost of Community Services. Incentives that will be provided through the Sentinel project will allow local leaders and private landowners to access funds to allow for projects, plans, and policies that will ultimately benefit both the agricultural economy and military preparedness in the region.

The benefit to working lands in eastern NC through the Sentinel Landscapes and Cost of Community Services Studies are essential to understand and embrace. The reason these are important is because more than 90 percent of

the land within the Eastern North Carolina Sentinel Landscape Project is privately owned. More than 60 percent of the landscape is forested acreage. Agriculture and agribusiness, North Carolina's biggest economic contributors, are more prevalent in this region than anywhere else in North Carolina and contribute \$84 billion annually to the state's economy, making the protection of these lands a top priority for the partnership. Through voluntary programs and incentives, eligible landowners and communities who want to conserve and protect their working lands could receive financial assistance to do so while also protecting the military mission of key installations¹⁹. This project in concert with an understanding by local leaders of the importance of maintaining agricultural lands as a result of the COCS study for Duplin County, clearly lays the foundation for all residents of the county to demand a systematic and well planned agriculture development land use strategy.

TAXATION

Duplin County's property tax rate when compared with surrounding counties represents the median tax rate for the six counties adjacent to Duplin (Table 6).

Table 6. County Property Tax, Sales Tax and Tier Designation²⁰

Statistic	Duplin County (NC)	Jones County (NC)	Onslow County (NC)	Pender County (NC)	Sampson County (NC)	Wayne County (NC)
2014-15 Property Tax Rate per \$100 Value	\$0.7300	\$0.7900	\$0.6750	\$0.6850	\$0.8300	\$0.6650
Fiscal Year 2014-15 Annual Taxable Retail Sales (\$mil)	\$337	\$29	\$1,876	\$359	\$414	\$1,049
2016 Tier designation	2	1	2	3	2	2

While property taxes are an important revenue stream for the County, the continuation of deferred tax programs for agricultural lands is important as

¹⁹ USDA, US Dept. of Interior, US Dept. of Defense, Sentinel Landscapes (2016) <http://sentinellandscapes.org/>

²⁰ Source: NC Department of Commerce, ACCESSNC, Duplin Co July 2016.
<http://accessnc.nccommerce.com/DemoGraphicsReports/pdfs/countyProfile/NC/37061.pdf>

well. As noted, agricultural and forested lands contributed \$5,770,499.39 in property taxes to Duplin County in 2015. This contribution was significant and was instrumental in concert with the taxes collected from commercial/industrial properties in offsetting the deficit between revenues and expenditures collected and spent respectively to provide services to residential property owners in Duplin County.

In North Carolina, certain agricultural, horticultural and forested acres are taxed under a deferred tax program enacted by the NC General Assembly in 1974 designated as the Present Use Value Taxation Program. The importance of this program to the viability of agricultural and forested working lands and to the economic well-being of the county is apparent as a result of the COCS Study for Duplin County.

The greatest asset a farmer or forest landowner has is their land. This deferred taxation program allows landowners that are

- *actively engaged in the commercial production or growing of crops, plants, or animals;*
- *actively engaged in the commercial production or growing of fruits, vegetables, nursery products, or floral products;*
- *actively engaged in the commercial growing of trees;*

to be considered for present-use value classification. In addition to these parameters, there are criteria related directly to ownership, property size, income, and management practices that ultimately determine whether property may be taxed based upon its present-use value or its market value. Generally stated, present-use value (PUV) is the value of land in its current use as agricultural land, horticultural land, or forestland, based solely on its ability to produce income and assuming an average level of management. This program allows landowners to continue to contribute to the local economy through taxation, but does not stifle the ability of the agricultural operation to remain profitable and continue to contribute to the County's economy through

sales of market products and the need for and presence of allied industries to support these sales.

Properties that qualify for present-use value classification are assessed at their present-use value rather than its market value. Present-use value is usually less than market value and qualifying tracts are assessed at this lower value. The tax office establishes a market value for the land, and the difference between the market value and the present-use value is maintained in the tax assessment records as deferred taxes. When land becomes disqualified from the present-use value program, the deferred taxes for the current year and the three previous years with accrued interest will usually become due and payable²¹.

Tax relief is an important issue for farmers. Farms need land to operate and property taxes on farmland can be a significant expense. Taxes on farm buildings and other assets are often substantial as well. Legislation exists that supports the concept that taxes on agricultural land should be proportionate to its demand on community services and its ability to generate income. As demonstrated in multiple national and state County Cost of Community Services (COCS) studies, farmland provides more in property tax revenues than it requires in public services and by keeping farmland productive it serves to control the cost of community services.

Since overtaxed agricultural land may be more susceptible to conversion to non-agricultural uses, tax relief measures can also be considered a farmland protection tool. The expense of property taxes may discourage farmers from buying land and can force existing farmers to sell.

²¹ Baker, David B., Present-Use Value Program Guide, NC Department of Revenue, 1 Jan 2015
http://www.dornc.com/publications/puv_guide.pdf

Farmers' savings from deferred property tax programs can be significant and may make the difference between staying in business and selling out²². The retention and support of agriculture in Duplin County is, as previously stated, essential to the economic stability and quality of life appreciated by Duplin County residents.

²² Agriculture and Community Development Services Inc., Agricultural Trends Profile for Duplin County, NC. <http://www.duplincountync.com/pdfs/Agricultural%20Trends%20Profile%20for%20Duplin%20County.pdf>

Duplin County Agriculture

The impact of agriculture including forestry in Duplin County cannot be overstated. Agriculture in Duplin County and across North Carolina has experienced change over the last few decades. The tobacco buyout, changes to the animal agriculture infrastructure, diversification of crops and cropping systems, options for alternative energy resources, and expansion and diversification of agribusiness opportunities in distribution and processing have all impacted agriculture. However agriculture still remains the number one industry in the state and in Duplin County.

Mike Walden, NC State University economist, reported that in 2014 agriculture and agribusiness, which include the food, fiber and forestry industries, accounted for one-sixth of the state's income and employees. Data compiled also indicated that 17%, or \$84 billion, of the \$482 billion gross state product is contributed by food, fiber and forestry industries. These industries account for 686,200 of the state's four million employees²³.

Based upon data compiled for 2012 by Walden, agriculture and agribusiness in Duplin County is crucial to the rural economy of the county. Data reported indicated the total agricultural/agribusiness employment for Duplin County was 14,473 or represented a 46.3% share of the county employment, with employment including both full and part-time employment (Table 7).

²³ Mike Walden, Reynolds Distinguished Professor and Extension Economist, NC State's College of Agriculture and Life Sciences (2016) <https://ag-econ.ncsu.edu/wp-content/uploads/2016/05/agribusiness-2016.pdf>

Table 7. Agriculture and Agribusiness in Duplin County 2014²⁴

Agriculture / Food Industries	
Farming:	\$ 1,209,223,000
Manufacturing:	\$ 450,040,538
Wholesaling/Retailing:	\$ 22,071,969
Total:	\$ 1,681,335,507
Natural Fiber Industries	
Farming:	\$ 8,287,000
Manufacturing:	\$ 23,239,162
Wholesaling/Retailing:	\$ 3,239,966
Total:	\$ 34,766,127
Forestry Industries	
Farming:	\$ 8,404,000
Manufacturing:	\$ 452,832
Wholesaling/Retailing:	\$ 1,085,442
Total:	\$ 9,942,274
Total Income	
Total County Value-added:	\$ 2,118,918,966
Agriculture/Food Industries	
total income:	\$ 1,681,335,507
share of county value-added:	79.3%
Natural Fiber Industries	
total income:	\$ 34,766,127
share of county value-added:	1.6%
Forestry Industries	
total income:	\$ 9,942,274
share of county value-added:	0.5%
All Agriculture/Agribusiness Industries	
total income:	\$ 1,726,043,908
share of county value-added:	81.5%
Total Agricultural/Agribusiness Employment	
total employment:	14,473
share of county employment:	46.3%

¹ Dollar-values are value-added, which is the production value using inputs from Duplin County.

²⁴ Mike Walden, Reynolds Distinguished Professor and Extension Economist, NC State's College of Agriculture and Life Sciences (2016) <http://www.ces.ncsu.edu/depts/agecon/counties/Duplin.pdf> Data are from IMPLAN (Mig, Inc.).

Table 7 additionally indicates that the total value-added income for Duplin County equaled in 2014, over \$2.1 billion dollars. The total value-added income from all agriculture and agribusiness industries in 2014 was over \$1.7 billion dollars which represented 81.5% of the county's total value added income. At the farm level, value-added is sales. At the manufacturing, wholesale and retail levels, value-added is sales minus the cost of non-labor inputs. Value-added does not include the value of non-North Carolina produced inputs, and value-added avoids the multiple counting of a product used several times in the production chain²⁵.

Clearly, agriculture and agribusiness is the economic engine of the county and the region.

Statewide, Duplin County ranked second in total cash receipts from the sale of agriculture products in 2014. Livestock, dairy and poultry receipts accounted for eighty-nine percent of the cash receipts (\$1,080,161,645) with ten percent coming from crops produced (\$125,051,576) and one percent from government payments (13,637,101). The total of cash receipts received in Duplin County equaled \$1,218,850,322. Duplin County ranked statewide among the top ten counties in the production of a number of livestock and crops.

In 2014, Duplin County's ranking statewide was:

- 1st in hogs and pigs (1,850,000)
- 1st in broilers produced (66,800,000)
- 2nd in turkeys raised (4,400,000)
- 9th in layers (440,000)
- 5th in beef cows (13,500)
- 8th in all cattle (22,000)
- 1st in hay

²⁵ Mike Walden, Reynolds Distinguished Professor and Extension Economist, NC State's College of Agriculture and Life Sciences (2016) <https://ag-econ.ncsu.edu/wp-content/uploads/2016/05/agribusiness-2016.pdf>

- 3rd in corn for grain
- 6th in wheat
- 7th in soybeans
- 7th in peanuts
- 7th in vegetables, nuts and fruits

Forestry is also a major component of Duplin County's agricultural economy with over half (52% reported in 2012) of the county's land in timberland. The forest industry economic impact for 2012 is reported in Table 8.

Table 8. 2012 Forest Industry Economic Impact²⁶

Income From Timber Sales¹ :

Income Source	NC	Duplin
Forest stumpage (\$mill.)	\$ 391.5	\$4.3
Delivered forest products (\$mill.)	\$ 774.9	\$ 8.8

Forest Industry Economic Impact²

Total Impact	NC	Duplin County
Output (\$mill.)	\$21,700	\$57.8
Labor income (\$mill.)	\$5,525	\$9.9
Employment	103,000	1,015

¹ Stumpage value is what the landowner receives for the sale of their standing timber. Delivered value is what is paid by the forest products industry upon delivery of the trees to the mill.

² Forest economic impact is based on total effects of all forest products and wood-based industry sectors

Agricultural trends in Duplin County are comparable to that across the state.

Farm numbers have declined in Duplin County: 1368 in 1997; 1190 in 2002; 1159 in 2007; to 940 in 2012 while the average farm size continued to increase from 214 acres in 2007 to 246 in 2012²⁷. This is in keeping with other counties in NC witnessing a reduction in farms, but an increase in farm size.

²⁶ Source: Forestry Impacts Duplin County, NC. NC State University, NC Extension Forestry. <http://content.ces.ncsu.edu/duplin-county>

²⁷ USDA, US Census of Agriculture 2012

As agriculture shifts locally and statewide, the economics of scale begin to influence profitability as agricultural producers engage in meeting demand on a regional and global scale.

It is apparent that not only agricultural and forest product production is essential to the viability of Duplin County's economy, but the agribusiness community and allied business communities are maintaining their presence within the county and diversifying. Out of the 2015 Duplin County top 25 largest manufacturers reported in Table 4, 4 of the top 5 companies listed were directly associated with agriculture and 15 of the top 25 were directly or indirectly associated with the agriculture industry.

The COCS provides an accurate depiction of Duplin County revenue and also evaluates the expenditures of county resources provided for the different land uses identified. The goal of this study is to provide an additional resource for county leaders to use to understand not only the cost of resources expended on each land use, but to continue to understand and support the agricultural industry in the respective counties and North Carolina. This study makes a significant statement: It is financially wise to keep land in agricultural production. As a result, this effort may become an economic development focus for the County and others who are concerned about the sustainability of farmland within North Carolina. In addition to helping maintain fiscal balance, farmlands help sustain Duplin County's economy, contribute to economic diversity and rural character, and help shape the overall quality of life in the region.

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Appendix: Supporting Tables

Table 1 Duplin County Total Revenue for 2014-2015

Source	Revenue	Percentage
Taxes:		
Ad Valorem Tax	\$30,069,681.00	54.03%
Local Option Sales Tax	\$6,628,722.00	11.91%
Other taxes and licenses	\$94,971.00	0.17%
Unrestricted Intergovernmental	\$6,237,452.00	11.21%
Restricted Intergovernmental	\$4,734,400.00	8.51%
Restricted Grants	\$48,000.00	0.09%
Permits and fees	\$485,252.00	0.86%
Restricted revenue	\$65,733.00	0.12%
Sales and Services	\$7,124,707.00	12.80%
Investment earnings	\$53,344.00	0.10%
Miscellaneous	\$108,684.00	0.20%
Total	<u>\$55,650,946.00</u>	<u>100.00%</u>

Source: **Audited Financial Statements**, Duplin County, NC, Fiscal Year Ending, June 30, 2015

Table 2 Duplin County Actual Expenditures for 2014-2015

Item	Expenditure	Percentage
General Government	\$5,694,047.00	10.93%
Public Safety	\$16,153,614.00	31.00%
Economic and Physical Development	\$735,351.00	1.41%
Human Services	\$15,910,100.00	30.54%
Cultural and Recreational	\$1,049,119.00	2.01%
Environmental protection	\$773,739.00	1.49%
Education	\$11,522,774.00	22.12%
Non-Departmental	\$262,439.00	0.50%
Total	<u>\$ 52,101,183.00</u>	<u>100.00%</u>

Source: **Audited Financial Statements**, Duplin County, NC, Fiscal Year Ending, June 30, 2015

Table 3 Revenue-to-Expenditures in Duplin County 2014-2015

Revenue-to-Expenditure Ratios in Dollars			
	Residential	Commercial	Agricultural
Expenditures	\$47,171,540.45 (90.54%)	\$2,418,351.82 (4.64%)	\$2,511,290.73 (4.82%)
Revenue	\$41,523,968.85 (74.62%)	\$8,043,552.40 (14.45%)	\$6,083,424.74 (10.93%)
Revenue-to-Expenditure Ratio^a	1:1.14	1:0.30	1:0.41

^a This ratio measures the cost of services used by a given land sector for each dollar of county revenue contributed to that sector. The formula used is (Revenue/Revenue):(Expenditure/Revenue).

Tables 4A & B

Comparison of Revenue-to-Expenditures in Other Counties

Revenue-to-Expenditure Ratios from National Studies ^a			
	Residential	Commercial	Agricultural
Minimum	1:1.01	1:0.05	1:0.02
Median*	1:1.16	1:0.29	1:0.35
Maximum	1:2.11	1:1.04	1:2.04

*Median cost per dollar of revenue raised to provide public services to different land uses.

Revenue-to-Expenditure Ratios from Local NC Studies ^b			
	Residential	Commercial	Agricultural
Wake County (2001)	1:1.54	1:0.18	1:0.47
Union County (2006) ^c	1:1.30	1:0.41	1:0.24
Orange County (2006)	1:1.32	1:0.24	1:0.72
Alamance County (2006)	1:1.47	1:0.23	1:0.59
Chatham County (2007)	1:1.15	1:0.33	1:0.58
Henderson County (2008)	1:1.16	1:0.40	1:0.49
Gaston County (2008)	1:1.23	1:0.41	1:0.88
Franklin County (2009)	1:1.12	1:0.53	1:0.76
Guilford County (2010)	1:1.35	1:0.29	1:0.62
Wayne County (2011) ^d	1:1.24	1:0.34	1:0.47
Yadkin County (2011)	1:1.18	1:0.38	1:0.61
Catawba County (2013)	1:1.23	1:0.54	1:0.75
Pitt County (2013)	1:1.29	1:0.36	1:0.62
Davie County (2014)	1:1.14	1:0.50	1:0.67
Craven County (2015) ^d	1:1.10	1:0.33	1:0.20
Pamlico County (2015) ^e	1:0.99	1:0.71	1:0.51

^a These figures are derived from Cost of Community Services summarized on the American Farmland Trust website (http://www.communitypreservation.org/community_services.pdf).

^b Source: Renkow, Mitch. "Land Preservation Notebook." (<http://www.cals.ncsu.edu/wq/lpn/cost.html>)

^c Source: Dorfman, Jeffrey H. "The Fiscal Impacts of Land Uses on Local Government" Land Use Studies Initiative and Department of Agricultural & Applied Economics The University of Georgia, April 2006

^d Source: Best, Kathy. University of Mount Olive Cost of Community Services Study, Wayne (2011); Craven (2015)

^e Source: Olive, Edward F. University of Mount Olive Cost of Community Services Study, Pamlico (2015)

**Table 5. Breakeven Analysis for Residential Property Value
Duplin County, NC 2014-2015**

(1)	Property tax rate (cents per \$100 of property value)	73.0
(2)	Residential Non-Property Tax Revenue Contribution in FYE June 30, 2015 (omitting other financing sources)	\$ 24,713,945.60
(3)	Total residential expenditures in FYE June 30, 2015 (omitting other financing uses)	\$ 47,171,540.45
(4)	Total Expenditures needing to be paid for by property taxes [(3) – (2)]	\$ 22,457,594.85
(5)	Number of residential properties in the county	25,521
(6)	Per household expenditures needing to be paid for by property taxes [(4) ÷ (5)]	\$880
Breakeven property value [(6) ÷ (1)]		<u>\$ 120,543</u>

Table 6 Duplin County Actual Revenues by Land Use Category for 2014-2015

Item	Total	Residential	Commercial/ Industrial	Agricultural/ Forestry	% Breakdown
Ad valorem taxes	\$30,069,681.00				
Taxes	\$29,632,051.00	\$16,416,156.25	\$7,467,276.85	\$5,748,617.89	default*
Penalties and interest	\$437,630.00	\$393,867.00	\$21,881.50	\$21,881.50	90-5-5
Local option sales taxes	\$6,628,722.00				
Article 39 and 44	\$2,497,517.00	\$2,497,517.00	\$0.00	\$0.00	100-0-0
Article 40 one-half of one percent	\$2,355,783.00	\$2,355,783.00	\$0.00	\$0.00	100-0-0
Article 42 one-half of one percent	\$929,548.00	\$929,548.00	\$0.00	\$0.00	100-0-0
Article 46 one-quarter of one percent	\$845,874.00	\$845,874.00	\$0.00	\$0.00	100-0-0
Other taxes and licenses	\$94,971.00				
Deed stamp excise tax	\$78,856.00	\$59,142.00	\$7,885.60	\$11,828.40	75-10-15
Privilege licenses	\$457.00		\$457.00	\$0.00	0-100-0
Other taxes and licenses	\$15,658.00	\$15,658.00	\$0.00	\$0.00	100-0-0
Unrestricted intergovernmental	\$6,237,452.00				
Video programming distribution	\$24,264.00		\$24,264.00		0-100-0
Medicaid hold harmless distribution	\$423,868.00	\$423,868.00	\$0.00	\$0.00	100-0-0
State grants	\$5,789,320.00	\$5,789,320.00	\$0.00	\$0.00	100-0-0
Restricted intergovernmental	\$4,734,400.00				
State grants	\$4,408,757.00	\$4,408,757.00	\$0.00	\$0.00	100-0-0
Federal grants	\$162,191.00	\$162,191.00	\$0.00	\$0.00	100-0-0
Court facility fees	\$120,816.00	\$120,816.00	\$0.00	\$0.00	100-0-0
Grants-Other	\$42,636.00	\$42,636.00	\$0.00	\$0.00	100-0-0
Restricted Grants	\$48,000.00				
Vidant Duplin Foundation grant	\$20,000.00	\$20,000.00	\$0.00	\$0.00	100-0-0
Vidant - Diabetic Management grant	\$17,000.00	\$17,000.00	\$0.00	\$0.00	100-0-0
Healthy Weight Clinic grant	\$11,000.00	\$11,000.00	\$0.00	\$0.00	100-0-0

*Default percentage: Residential (including historic) 55.4%; Commercial/Industrial 25.2%; Agriculture/Forestry 19.4%.

Table 6 Duplin County Actual Revenues by Land Use Category for 2014-2015

Item	Total	Residential	Commercial/ Industrial	Agricultural/ Forestry	% Breakdown
Permits and fees	\$485,252.00				
Building permit fees	\$102,866.00	\$61,719.60	\$30,859.80	\$10,286.60	60-30-10
Building inspection fees	\$144,110.00	\$86,466.00	\$43,233.00	\$14,411.00	60-30-10
Fire inspection fees	\$42,775.00	\$2,138.75	\$40,636.25	\$0.00	5-95-0
Marriage license fees	\$19,440.00	\$19,440.00	\$0.00	\$0.00	100-0-0
Register of deeds fees	\$176,061.00	\$79,227.45	\$35,212.20	\$61,621.35	45-20-35
Restricted revenue	\$65,733.00				
Social services fraud collections	\$53,649.00	\$53,649.00	\$0.00	\$0.00	100-0-0
ABC profit distribution (10%)	\$12,084.00	\$12,084.00	\$0.00	\$0.00	100-0-0
Sales and services	\$7,124,707.00				
Ambulance and rescue squad fees	\$2,419,110.00	\$2,419,110.00	\$0.00	\$0.00	100-0-0
Health department fees	\$1,431,859.00	\$1,431,859.00	\$0.00	\$0.00	100-0-0
Nutrition fees	\$28,856.00	\$28,856.00	\$0.00	\$0.00	100-0-0
Police protection/School resource officers	\$993,970.00	\$993,970.00	\$0.00	\$0.00	100-0-0
Sheriff and jail fees	\$438,374.00	\$438,374.00	\$0.00	\$0.00	100-0-0
Animal control fees	\$32,469.00	\$32,469.00	\$0.00	\$0.00	100-0-0
Cabin Lake fees	\$48,960.00	\$48,960.00	\$0.00	\$0.00	100-0-0
Library fees	\$11,769.00	\$11,769.00	\$0.00	\$0.00	100-0-0
Event Center revenue	\$81,174.00	\$64,939.20	\$8,117.40	\$8,117.40	80-10-10
Rental income	\$165,308.00	\$16,530.80	\$82,654.00	\$66,123.20	10-50-40
Social services fees	\$35,140.00	\$35,140.00	\$0.00	\$0.00	100-0-0
Aging department fees	\$32,344.00	\$32,344.00	\$0.00	\$0.00	100-0-0
Other fees and services	\$1,405,374.00	\$983,761.80	\$281,074.80	\$140,537.40	70-20-10
Investment earnings	\$53,344.00	\$53,344.00			100-0-0

Table 6 Duplin County Actual Revenues by Land Use Category for 2014-2015

Item	Total	Residential	Commercial/ Industrial	Agricultural/ Forestry	% Breakdown
Miscellaneous	\$108,684.00				
Various contributions	\$23,252.00	\$23,252.00	\$0.00	\$0.00	100-0-0
In-kind contributions	\$26,180.00	\$26,180.00	\$0.00	\$0.00	100-0-0
ABC profit distribution (35%)	\$42,294.00	\$42,294.00	\$0.00	\$0.00	100-0-0
Other revenues	\$16,958.00	\$16,958.00	\$0.00	\$0.00	100-0-0
	<u>\$55,650,946.00</u>	<u>\$41,523,968.85</u>	<u>\$8,043,552.40</u>	<u>\$6,083,424.74</u>	
		74.62%	14.45%	10.93%	

Table 7 Duplin County Actual Expenditures by Land Use Category for 2014-2015

Item	Total	Residential	Commercial/ Industrial	Agricultural/ Forestry	% Breakdown
General Government	\$5,694,047.00				
Governing Body	\$230,687.00	\$207,618.30	\$23,068.70	\$0.00	90-10-0
County Manager	\$196,480.00	\$192,550.40	\$3,929.60	\$0.00	98-2-0
Personnel	\$228,019.00	\$228,019.00	\$0.00	\$0.00	100-0-0
Finance	\$494,726.00	\$371,044.50	\$123,681.50	\$0.00	75-25-0
Information Technology	\$476,974.00	\$381,579.20	\$47,697.40	\$47,697.40	80-10-10
Elections	\$236,511.00	\$236,511.00	\$0.00	\$0.00	100-0-0
Tax Administration	\$1,122,030.00	\$561,015.00	\$280,507.50	\$280,507.50	50-25-25
Central Supply	\$1,115,287.00	\$617,869.00	\$281,052.32	\$216,365.68	default *
Register of Deeds	\$336,736.00	\$252,552.00	\$33,673.60	\$50,510.40	75-10-15
Housekeeping	\$208,578.00	\$208,578.00	\$0.00	\$0.00	100-0-0
Building Maintenance	\$528,899.00	\$528,899.00	\$0.00	\$0.00	100-0-0
Garage	\$228,249.00	\$228,249.00	\$0.00	\$0.00	100-0-0
Attorney	\$290,871.00	\$261,783.90	\$29,087.10	\$0.00	90-10-0
Public Safety	\$16,153,614.00				
Sheriff	\$3,865,923.00	\$3,286,034.55	\$386,592.30	\$193,296.15	85-10-5
Court Facilities	\$204,332.00	\$204,332.00	\$0.00	\$0.00	100-0-0
Jury Commission	\$2,591.00	\$2,591.00	\$0.00	\$0.00	100-0-0
Adult Probation	\$4,519.00	\$4,519.00	\$0.00	\$0.00	100-0-0
Mental Health Transportation	\$37,105.00	\$37,105.00	\$0.00	\$0.00	100-0-0
Special Separation Allowance	\$47,159.00	\$47,159.00	\$0.00	\$0.00	100-0-0
Fingerprinting	\$3,187.00	\$3,187.00	\$0.00	\$0.00	100-0-0
Communications	\$1,175,019.00	\$998,766.15	\$117,501.90	\$58,750.95	85-10-5
Special Response Team	\$3,508.00	\$2,981.80	\$526.20	\$0.00	85-15-0
School Resource Officer	\$853,509.00	\$853,509.00	\$0.00	\$0.00	100-0-0
Federally Seized Assets - Customs	\$41,893.00	\$41,893.00	\$0.00	\$0.00	100-0-0

*Default percentage: Residential (including historic) 55.4%; Commercial/Industrial 25.2%; Agriculture/Forestry 19.4%.

Table 7 Duplin County Actual Expenditures by Land Use Category for 2014-2015

Item	Total	Residential	Commercial/ Industrial	Agricultural/ Forestry	% Breakdown
Federally Seized Assets - Justice Department	\$117,966.00	\$117,966.00	\$0.00	\$0.00	100-0-0
GIS-911 Functions	\$8,333.00	\$6,666.40	\$416.65	\$1,249.95	80-5-15
Addressing-911 Functions	\$14,954.00	\$11,963.20	\$2,243.10	\$747.70	80-15-5
Jail	\$2,590,430.00	\$2,590,430.00	\$0.00	\$0.00	100-0-0
Emergency Management	\$180,105.00	\$135,078.75	\$27,015.75	\$18,010.50	75-15-10
State Public Safety Grant - 2014 SS00069	\$900.00	\$900.00	\$0.00	\$0.00	100-0-0
Department of Justice 2013 Alien Grant - DJ BXO805	\$12,848.00	\$12,848.00	\$0.00	\$0.00	100-0-0
Department of Justice 2014 Alien Grant - APBX054	\$2,414.00	\$2,414.00	\$0.00	\$0.00	100-0-0
NC Race Car Heart Project	\$5,000.00	\$5,000.00	\$0.00	\$0.00	100-0-0
Emergcy Medical Services	\$4,818,566.00	\$4,818,566.00	\$0.00	\$0.00	100-0-0
Fire Marshall	\$1,482,963.00	\$1,038,074.10	\$296,592.60	\$148,296.30	70-20-10
Faison Substation	\$102,383.00	\$71,668.10	\$20,476.60	\$10,238.30	70-20-10
Building Inspections	\$245,320.00	\$183,990.00	\$49,064.00	\$12,266.00	75-20-5
Medical Examiner	\$22,450.00	\$22,450.00	\$0.00	\$0.00	100-0-0
Animal Control	\$246,889.00	\$246,889.00	\$0.00	\$0.00	100-0-0
Courthouse Security Project	\$32,873.00	\$32,873.00	\$0.00	\$0.00	100-0-0
Concealed Handgun	\$29,979.00	\$29,979.00	\$0.00	\$0.00	100-0-0
State Public Safety Grant 2014 SS 00067	\$496.00	\$446.40	\$0.00	\$49.60	90-0-10

Table 7 Duplin County Actual Expenditures by Land Use Category for 2014-2015

Item	Total	Residential	Commercial/ Industrial	Agricultural/ Forestry	% Breakdown
Economic and physical development	\$735,351.00				-
Planning	\$56,342.00	\$45,073.60	\$5,634.20	\$5,634.20	80-10-10
Central Plant - Duplin Commons	\$27,311.00	\$24,579.90	\$2,731.10	\$0.00	90-10-0
Westpark Business Technology Center	\$35,204.00	\$0.00	\$35,204.00	\$0.00	0-100-0
Economic Development	\$223,099.00	\$0.00	\$223,099.00	\$0.00	0-100-0
N.C. Cooperative Extension Service	\$261,608.00	\$130,804.00	\$0.00	\$130,804.00	50-0-50
N.C. Cooperative Extension Service 4-H Prevention Program	\$35,523.00	\$35,523.00	\$0.00	\$0.00	100-0-0
Industrial Park	\$2,860.00	\$0.00	\$2,860.00	\$0.00	0-100-0
JCPC - Duplin Parenting	\$924.00	\$924.00	\$0.00	\$0.00	100-0-0
JCPC - 4-H Outreach	\$47,257.00	\$47,257.00	\$0.00	\$0.00	100-0-0
Vidant 4-H EFNET Grant	\$18,201.00	\$18,201.00	\$0.00	\$0.00	100-0-0
Livestock Facility	\$9,757.00	\$0.00	\$0.00	\$9,757.00	0-0-100
Farm Services Agency	\$11,265.00	\$0.00	\$0.00	\$11,265.00	0-0-100
JCPC Juvenile Court Psychological Service	\$6,000.00	\$6,000.00	\$0.00	\$0.00	100-0-0

Table 7 Duplin County Actual Expenditures by Land Use Category for 2014-2015

Item	Total	Residential	Commercial/ Industrial	Agricultural/ Forestry	% Breakdown
Human services	\$15,910,100.00				
Health	\$119,332.00	\$119,332.00	\$0.00	\$0.00	100-0-0
UHS - Healthy Weight Clinic Grant	\$22,756.00	\$22,756.00	\$0.00	\$0.00	100-0-0
Environmental Health	\$409,150.00	\$327,320.00	\$0.00	\$81,830.00	80-0-20
Food & Lodging	\$20,395.00	\$0.00	\$20,395.00	\$0.00	0-100-0
Communicable Disease	\$160,699.00	\$160,699.00	\$0.00	\$0.00	100-0-0
Immunization Action Plan	\$207,880.00	\$207,880.00	\$0.00	\$0.00	100-0-0
WIC - General Administration	\$6,766.00	\$6,766.00	\$0.00	\$0.00	100-0-0
WIC - Nutrition Education	\$107,009.00	\$107,009.00	\$0.00	\$0.00	100-0-0
WIC - Breastfeeding Promotion	\$14,413.00	\$14,413.00	\$0.00	\$0.00	100-0-0
WIC - Client Services	\$314,220.00	\$314,220.00	\$0.00	\$0.00	100-0-0
Dental Program	\$172,738.00	\$172,738.00	\$0.00	\$0.00	100-0-0
Bioterrorism	\$37,738.00	\$37,738.00	\$0.00	\$0.00	100-0-0
Tuberculosis	\$68,240.00	\$68,240.00	\$0.00	\$0.00	100-0-0
March of Dimes - Centering Pregnancy	\$278.00	\$278.00	\$0.00	\$0.00	100-0-0
Primary Care	\$815,113.00	\$815,113.00	\$0.00	\$0.00	100-0-0
Community Health Promotion	\$41,731.00	\$41,731.00	\$0.00	\$0.00	100-0-0
Pregnancy Care Management	\$107,971.00	\$107,971.00	\$0.00	\$0.00	100-0-0
Pregnancy Care Management - Non Medicaid	\$38,153.00	\$38,153.00	\$0.00	\$0.00	100-0-0
Maternal Health	\$255,725.00	\$255,725.00	\$0.00	\$0.00	100-0-0
Family Planning	\$312,102.00	\$312,102.00	\$0.00	\$0.00	100-0-0
Child Health	\$323,499.00	\$323,499.00	\$0.00	\$0.00	100-0-0
CC4C	\$136,733.00	\$136,733.00	\$0.00	\$0.00	100-0-0
Social Services Administration	\$5,720,157.00	\$5,720,157.00	\$0.00	\$0.00	100-0-0
Social Services Building Expense	\$210,760.00	\$210,760.00	\$0.00	\$0.00	100-0-0
Work First/TANF	\$4,781.00	\$4,781.00	\$0.00	\$0.00	100-0-0

Table 7 Duplin County Actual Expenditures by Land Use Category for 2014-2015

Item	Total	Residential	Commercial/ Industrial	Agricultural/ Forestry	% Breakdown
Title - IV D	\$132,775.00	\$132,775.00	\$0.00	\$0.00	100-0-0
Special Assistance for Adults	\$474,262.00	\$474,262.00	\$0.00	\$0.00	100-0-0
Foster Children	\$234,467.00	\$234,467.00	\$0.00	\$0.00	100-0-0
Medicaid Program	\$354,196.00	\$354,196.00	\$0.00	\$0.00	100-0-0
Aid to the Blind Program	\$6,057.00	\$6,057.00	\$0.00	\$0.00	100-0-0
Adoption Assistance	\$24,378.00	\$24,378.00	\$0.00	\$0.00	100-0-0
Crisis Intervention Program	\$224,636.00	\$224,636.00	\$0.00	\$0.00	100-0-0
Progress Energy Assistance	\$5,576.00	\$5,576.00	\$0.00	\$0.00	100-0-0
Low Income Home Energy Assistance	\$338,027.00	\$338,027.00	\$0.00	\$0.00	100-0-0
General Assistance	\$25,159.00	\$25,159.00	\$0.00	\$0.00	100-0-0
Daycare	\$2,648,651.00	\$2,648,651.00	\$0.00	\$0.00	100-0-0
Seniors' Health Insurance Information Program	\$3,635.00	\$3,635.00	\$0.00	\$0.00	100-0-0
Aging Program	\$354,144.00	\$354,144.00	\$0.00	\$0.00	100-0-0
Aging - Fan Program	\$466.00	\$466.00	\$0.00	\$0.00	100-0-0
Aging - In-Home Aid Services	\$133,493.00	\$133,493.00	\$0.00	\$0.00	100-0-0
Aging - Title III Transportation	\$97,724.00	\$97,724.00	\$0.00	\$0.00	100-0-0
Aging - Title III-F Health Promotion	\$5,785.00	\$5,785.00	\$0.00	\$0.00	100-0-0
UHS Diabetes Management Grant	\$18,284.00	\$18,284.00	\$0.00	\$0.00	100-0-0
Aging - Housing & Home Improvement	\$5,438.00	\$5,438.00	\$0.00	\$0.00	100-0-0
Senior Center Operations	\$5,191.00	\$5,191.00	\$0.00	\$0.00	100-0-0
Family Caregiver	\$10,182.00	\$10,182.00	\$0.00	\$0.00	100-0-0
Peer Breastfeeding	\$17,442.00	\$17,442.00	\$0.00	\$0.00	100-0-0
Nutrition - Home Bound Meals	\$121,764.00	\$121,764.00	\$0.00	\$0.00	100-0-0
Nutrition	\$236,875.00	\$236,875.00	\$0.00	\$0.00	100-0-0
JCPC Restitution/Teen Court	\$66,974.00	\$66,974.00	\$0.00	\$0.00	100-0-0
JCPC - Building Peace in Schools	\$38,542.00	\$38,542.00	\$0.00	\$0.00	100-0-0
JCPC - Administration	\$1,415.00	\$1,415.00	\$0.00	\$0.00	100-0-0
JCPC - Gang Awareness	\$9,154.00	\$9,154.00	\$0.00	\$0.00	100-0-0

Table 7 Duplin County Actual Expenditures by Land Use Category for 2014-2015

Item	Total	Residential	Commercial/ Industrial	Agricultural/ Forestry	% Breakdown
Veteran's Service Officer	\$124,436.00	\$124,436.00	\$0.00	\$0.00	100-0-0
County Wellness Program	\$293,864.00	\$293,864.00	\$0.00	\$0.00	100-0-0
Cape Fear Obesity Clinic Grant	\$6,879.00	\$6,879.00	\$0.00	\$0.00	100-0-0
Vital Records	\$7,759.00	\$7,759.00	\$0.00	\$0.00	100-0-0
Delta Dental Grant	\$3,437.00	\$3,437.00	\$0.00	\$0.00	100-0-0
Contributions: Mental Health - Eastpointe Human Services	\$224,474.00	\$224,474.00	\$0.00	\$0.00	100-0-0
STD Drugs	\$2,983.00	\$2,983.00	\$0.00	\$0.00	100-0-0
Senior Center General Purpose	\$23,237.00	\$23,237.00	\$0.00	\$0.00	100-0-0
Cultural and Recreational	\$1,049,119.00				
Museum	\$33,195.00	\$33,195.00	\$0.00	\$0.00	100-0-0
Library	\$519,872.00	\$519,872.00	\$0.00	\$0.00	100-0-0
Law Library-Capital Outlay	\$3,648.00	\$3,648.00	\$0.00	\$0.00	100-0-0
Gates Staying Connected Grant	\$12,758.00	\$12,758.00	\$0.00	\$0.00	100-0-0
Event Center	\$274,867.00	\$164,920.20	\$27,486.70	\$82,460.10	60-10-30
Parks and Recreation	\$141,660.00	\$141,660.00	\$0.00	\$0.00	100-0-0
State Department of Commerce Grant Museum	\$51,020.00	\$51,020.00	\$0.00	\$0.00	100-0-0
Contribution to Veterans Museum	\$10,000.00	\$10,000.00	\$0.00	\$0.00	100-0-0
N.C. Community Foundation	\$2,099.00	\$2,099.00	\$0.00	\$0.00	100-0-0
Environmental protection	\$773,739.00	\$0.00	\$0.00	\$0.00	
Soil Conservation	\$666,818.00	\$0.00	\$0.00	\$666,818.00	0-0-100
Contributions: Forestry Service	\$106,921.00	\$0.00	\$0.00	\$106,921.00	0-0-100

Table 7 Duplin County Actual Expenditures by Land Use Category for 2014-2015

Item	Total	Residential	Commercial/ Industrial	Agricultural/ Forestry	% Breakdown
Education	\$11,522,774.00				
Public schools - current expenditures	\$9,485,760.00	\$9,485,760.00	\$0.00	\$0.00	100-0-0
Public schools - capital outlay	\$147,939.00	\$147,939.00	\$0.00	\$0.00	100-0-0
Community colleges - current expenditures	\$1,621,168.00	\$972,700.80	\$324,233.60	\$324,233.60	60-20-20
Community colleges - capital outlay	\$267,907.00	\$160,744.20	\$53,581.40	\$53,581.40	60-20-20
Non-departmental	\$262,439.00				
Post-employment healthcare benefits	\$253,089.00	\$253,089.00	\$0.00	\$0.00	100-0-0
Other expenditures	\$9,350.00	\$9,350.00	\$0.00	\$0.00	100-0-0
	\$52,101,183.00	\$47,171,540.45	\$2,418,351.82	\$2,511,290.73	
		90.54%	4.64%	4.82%	